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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,997	03/28/2001	Raymund Sonnenschein	32301WC104	9757

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EXAMINER

MANOHARAN, VIRGINIA

ART UNIT PAPER NUMBER

1764

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,997

Applicant(s)

SONNENSCHN ET AL.

Examiner

Virginia Manoharan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The specification had not been checked to the extent necessary to determine the presence of all possible minor errors, e.g., typographical, grammar, idiomatic, syntax and etc. Applicants' cooperations are requested in correcting any errors of which applicants may become aware in the specification.

Claims 13-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of "a first product" and "a second product" in claim 17 appears to broaden the trichlorosilane, allyl chloride and the chloropropyltrichlorosilane of claim 13, the claim from which it depends. It is also unclear where the above chloride and silanes are removed i.e., whether removed as the overhead or bottoms product from the distillation process recited e.g., in claim 14. See further claims 19-21 and 23-24.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over anyone of Seiler et al (4,224,233), Schilling et al (6,015,920), Bade et al (6,242,630) with or without Seiler (4,196,139).

Anyone of the above references discloses substantially the method as claimed. That is, Seiler '233, Schilling or Bade each discloses a method for preparing an organosilane comprising reacting an allyl compound according to formula 1.



Wherein X is selected from the group consisting of C1, Br, I, F, CN, SCN, SH, SR, OH, NRR¹ and OR, wherein R and R¹, independent of one another, are selected from the group consisting of (C₁-C₆)alkyl or (C₃-C₇)alkyl, with a silane according to formula II:



Wherein R², R³, R⁴, independent of one another, are selected from the group consisting of hydrogen, halogen, (C₁-C₆)alkyl, (C₁-C₆)haloalkyl, (C₃-C₆)alkyl, (C₁-C₄)alkoxy, phenyl, aryl, or alkyl, in the presence of a platinum catalyst as broadly claimed in claim 1. Anyone of the references, discussed supra, further discloses the method for preparing chloropropyltrichlorosilane comprising reacting allyl chloride with trichlorosilane in a reaction column in the presence of a

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heterogeneous platinum catalyst as also broadly claimed in claim 13. Note the examples at columns 6-8 of the Schilling's reference; the claims at columns 6-8 of Seiler et al; and the claims at columns 8-10 of Bade et al.

The method of anyone of the above references differs from the claimed invention in that claims 1 and 13, for example, both recite the specific reaction pressure of between "1 and 25 bar".

Seiler et al recites "up to 50 bars" which obviously would encompassed the claimed between "1 bar and 25 bar". Nonetheless, Seiler '139 teaches at column 2, lines 62-67 that "In accordance with the invention, the pressure should be at least 5 bars. ... For process engineering reasons, the upper limit should be about 25 bars, although in principle, the reaction in accordance with the invention may also be carried out at higher pressures... Thus, the preferred pressure is comprised between 8 and 25 bars. ..." Incorporating the above teaching of Seiler '139 to anyone of the above references would have been obvious to one of ordinary skill in the art inasmuch as pressure is deemed to an artisan to be result effective variables as taught in all the above references.

Claims 3 and 4 is rendered obvious at column 3, lines 16-31 of the Schilling et al reference.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. Dinh et al discloses a process for producing organosilanes.
- b. Seiler '236 discloses a process for the preparation of 3-haloalkyl -silanes.

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- c. Coleman discloses a process for production of silane with recycle from two sequential columns.
- d. Schinabeck et al discloses a process for separating alkyl from a methyl chlorosilane mixture during distillation.
- e. Koga et al discloses a process for producing 3-chloropropyltrichlorosilane by the addition reaction of trichlorosilane to allyl chloride.
- f. Schuler discloses a process for preparing alkylhydrogenchlorosilane by catalytic reaction with hydrogen at pressure of from 1 to 50 bars.
- g. Batz-Sohn et al discloses a process for the preparation of organosilanes functionalized in the 3 -positions.

Any inquiry concerning this communication from the examiner should be directed to V. Manoharan whose telephone number is (571) 272-1450.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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V. Manoharan/dh

June 2, 2004


VIRGINIA MANOHARAN
PRIMARY EXAMINER
ART UNIT 125 / 1764
6/3/04